

Claim Amendments

Please cancel claims 7-9, 12-14, 18, 36-39, 47, 48, 51 and 52, amend claims 3, 6, 10, 15-17, 26, 35, 43, 44 and 49 and add new claims 53-58 as follows:

Claims 1-2 (canceled).

3. (currently amended) A method, comprising:

determining, among a plurality of input video frames in a bitstream, at least one video frame for video editing to achieve a video effect, wherein the input video frames comprise frame characteristics, the frame characteristics comprising at least a first characteristic and a second characteristic, and wherein the input video frames comprise one or more preceding video frames preceding said ~~at least one~~ video frame;

identifying the frame characteristic of said at least one input video frame;

modifying the bitstream in the compressed domain based on specified editing parameters for providing a modified bitstream indicative of edited video frames if the frame characteristic of said at least one video frame is the first characteristic, and wherein if the frame characteristic of said at least one video frame is the second characteristic, decoding one of said at least one video frame ~~and at least one of said preceding video frames~~ for providing a ~~plurality of~~ decoded video frames frame prior to said modifying and changing said decoded video frame to achieve the video effect.

4. (previously presented) The method of claim 3, wherein the input video frames comprise video data coded with a variable length code (VLC), said method further comprising:

converting the VLC coded video data into a binary form prior to said modifying.

5. (previously presented) The method of claim 4, further comprising:

processing the VLC coded video data in an inverse cosine transform operation prior to said converting.

6. (currently amended) The method of claim 3, further comprising:

modifying one or more further input video frames in the bitstream in a further domain different from the compressed domain for providing a further modified video bitstream, wherein said further domain comprises a file format domain.

7. (canceled)

8. (canceled)

9. (canceled)

10. (currently amended) The method of claim 3, wherein the modified ~~video~~ bitstream comprises edited frame data, said method further comprising:

converting the edited frame data into an edited media file.

11. (previously presented) The method of claim 10, wherein the edited frame data is converted based on format information indicative of editing properties of the edited frame data.

12. (canceled)

13. (canceled)

14. (canceled)

15. (currently amended) The method of claim 3, wherein said modifying and changing is also based on the editing parameters according to a user's chosen editing reference.

16. (currently amended) An apparatus, comprising:

a frame analyzer module, responsive to signals indicative of a plurality of input video frames in a bitstream, adapted for determining at least one video frame for video editing to achieve a video effect, wherein the input video frames comprise frame characteristics, the frame characteristics comprise a first characteristic and a second characteristic, and wherein the input

video frames comprise one or more preceding video frames preceding said at least one input video frame, said frame analyzer module further adapted for identifying the frame characteristic of said at least one video frame; and

a compressed domain processing module, responsive to signals indicative of the frame characteristic of said at least one video frame, for modifying the video frame data based on specified editing parameters for providing a modified bitstream indicative of edited video frames if the frame characteristic of said at least one video frame is the first characteristic; and

a decoding module, adapted for decoding one of said at least one video frame ~~and at least one of said preceding video frames~~ for providing a ~~plurality of decoded video frames prior to said modifying~~, if the frame characteristic of said at least one video frame is a second characteristic, so as to change the decoded video frame for achieving the video effect.

17. (currently amended) The apparatus of claim 16, further comprising:

a spatial domain processing module ~~[[.]]~~ adapted for modifying changing video frame data in ~~one or more further input video frames in the bitstream in a spatial domain for providing further modified video data~~ the decoded video frame.

18. (canceled)

19. (previously presented) The apparatus of claim 16, further comprising:

a format composer module for converting the modified video data into an edited media file.

20. (previously presented) The apparatus of claim 19, wherein the format composer module comprises a file format composer.

21. (previously presented) The apparatus of claim 19, wherein the format composer module comprises a media format composer.

22. (previously presented) The apparatus of claim 19, wherein the frame analyzer module is further adapted for identifying format information indicative of editing properties of the modified

video data so as to convert the modified video data into the edited media file compatible to a media player.

23. (previously presented) The apparatus of claim 16, wherein the bitstream also comprises audio data, said apparatus further comprising:

a format parser module, for separating the audio from the video frame data in the input video frames, and

an audio processing module adapted for modifying the audio data for providing modified audio data, if so desired.

24. (previously presented) The apparatus of claim 23, further comprising:

a combination module for combining the modified video data and the modified audio data for providing combined signals indicative of combined data.

25. (previously presented) The apparatus of claim 24, further comprising:

a format composer, responsive to the combined signals, for converting the combined data into an edited media file for use in a media player.

26. (currently amended) An apparatus, comprising:

a media encoder for encoding media data for providing encoded media data in a plurality of encoded video frames, wherein the encoded video frames comprise frame characteristics, the frame characteristics comprising at least a first characteristic and a second characteristic;

a media editing device, responsive to the encoded video frames, for providing edited data including one or more edited frames, the edited frames having a least one editing effect specified by one or more editing parameters, and

a media decoder, responsive to the edited data, for providing decoded media data, wherein the media editing device comprises:

a video editor module, responsive to signals indicative of encoded video frames, adapted for determining at least one video frame for video editing, and wherein the encoded video frames comprise one or more preceding video frames preceding said at least one video frame, said video

editor module further adapted for identifying the frame characteristic of said at least one video frame;

a compressed domain processing module, responsive to signals indicative of the frame characteristic of said at least one video frame, for modifying the encoded frame data based on specified editing parameters for providing the edited data if the frame characteristic of said at least one video frame is the first characteristic; and

a further module, adapted for decoding one of said at least one video frame ~~and at least one of said preceding video frames~~ for providing a plurality of decoded video frames, ~~the decoded video frames comprise a last decoded video frame, and encoding the last decoded video frame prior to said modifying~~ frame if the frame characteristic of said at least one video frame is the second characteristics, so as to change the decoded video frame for achieving the video effect.

27. (previously presented). The apparatus of claim 26, wherein the media encoder has a connectivity mechanism and the media editing device has a further connectivity mechanism for allowing the media editing device to communicate with the media encoder in order to receive therefore encoded media data in a wireless fashion.

28. (previously presented) The apparatus of claim 26, wherein the media decoder has a connectivity mechanism and the media editing device has a further connectivity mechanism for allowing the media editing device to provide the edited data to the media decoder in a wireless fashion.

29. (previously presented) The apparatus of claim 26, wherein the media encoder and the media editing device are integrated in an expanded encoding module.

30. (previously presented) The apparatus of claim 29, wherein the media decoder has a connectivity mechanism and the expanded encoding module has a further connectivity mechanism for allowing the expanded encoding module to provide the edited data to the media decoder in a wireless fashion.

31. (previously presented) The apparatus of claim 26, wherein the media decoder and the media editing device are integrated in an expanded decoding module.

32. (previously presented) The apparatus of claim 31, wherein the media encoder has a connectivity mechanism and the expanded decoding module has a further connectivity mechanism for allowing the media encoder to provide the edited data to the expanded decoding module in a wireless fashion.

33. (previously presented) The apparatus of claim 30, wherein each of the connectivity mechanism and the further connectivity mechanism comprises a bluetooth connectivity module.

34. (original) The media coding system of claim 30, wherein each of the connectivity mechanism and the further connectivity mechanism comprises an infra-red connectivity module.

35. (currently amended) An apparatus configured for editing media files in a bitstream, the bitstream comprising a video bitstream and an audio bitstream, wherein the video bitstream comprises a plurality of input video frames having video frame data, comprising:

a video editing application module for specifying an editing ~~effects~~ effect on the input video frames, the input video frames comprising at least one video frame for video editing and a plurality of preceding video frames preceding said at least one video frame, wherein the input video frames comprise frame characteristics, the frame characteristics comprising a first characteristic and a second characteristic; and

a video editing device comprising:

an editor module adapted for identifying the frame characteristic of said at least one video frame; and

a compressed domain processing module, responsive to signals indicative of the frame characteristic of said at least one video frame, for modifying at least part of the video frame data based on frame and specified editing effects for providing modified video data if the frame characteristic is the first characteristic; and

a further module, adapted for decoding one of said at least one video frame ~~and at least one of said preceding video frames~~ for providing a ~~plurality of~~ decoded video

~~frames, the decoded video frames comprising a last decoded video frame, said further module further adapted for encoding said last decoded video frame prior to said modifying~~ if the frame characteristic of said at least one video frame is the second characteristic, so as to change the decoded video frame for achieving the editing effect.

36. (canceled)

37. (canceled)

38. (canceled)

39. (canceled)

40. (previously presented) The apparatus of claim 35, further comprising:
a display screen for display video images based on modified video data.

41. (previously presented) The apparatus of claim 35, comprising a mobile terminal.

42. (canceled).

43. (currently amended) A computer readable storage medium embedded therein a software program, said software program comprising:

a code for determining, among a plurality of input video frames in a bitstream, at least one video frame for video editing to achieve a video effect, wherein the input video frames comprise frame characteristics, the frame characteristics comprising at least a first characteristic and a second characteristic, and wherein the input video frames comprise one or more preceding video frames preceding said at least one video frame;

a code for identifying the frame characteristic of said at least one input video frame; and

a code for modifying the bitstream in the compressed domain based on specified editing parameters for providing a modified bitstream indicative of edited video frames if the frame characteristic of said at least one video frame is the first characteristic, and ~~wherein~~

a code for decoding one of said at least one video frame for providing a decoded video frame, if the frame characteristic of said at least one video frame is the second characteristic, decoding said at least one video frame and at least one of said preceding video frames for providing a plurality of decoded video frames prior to said modifying so as to change the decoded video frame for achieving the editing effect.

44. (currently amended) The computer readable storage medium of claim 43, wherein the software program further comprises

a code for modifying video data in one or more further input video frames in a further domain different from the compressed domain based on the frame characteristics of said further input video frame and the specified editing parameters so as to provide modified further video data.

45. (canceled)

46. (canceled)

47. (canceled)

48. (canceled)

49. (currently amended) An apparatus, comprising:

means for determining, among a plurality of input video frames in a bitstream, at least one video frame for video editing to achieve a video effect, wherein the input video frames comprises frame characteristics, the frame characteristics comprising at least a first characteristic and a second characteristic, and wherein the input frames comprise one or more preceding video frames preceding said at least one video frame;

means for identifying the frame characteristic of said at least one video frame in a bitstream, and

means for modifying at least part of the bitstream in the compressed domain based on and specified editing parameters for providing a modified bitstream indicative of edited video frames if the frame characteristic of said at least one video frame is the first characteristic, and

means for decoding one of said at least one video frame for providing a decoded video frame ~~and at least one of said preceding video frames providing a plurality of decoded video frames, including a last decoded video frame~~ if the frame characteristic of said at least one video frame is the second characteristic; and means for ~~encoding the last decoded video frame prior to said modifying~~ the decoded video frame for achieving the video effect.

50. (previously presented) The apparatus of claim 49, further comprising:

means for converting the edited video frames into an edited media file.

51. (canceled)

52. (canceled)

53. (new) The method of claim 3, wherein the video effect comprises a scene-transition effect, said method further comprising:

decoding at least one of said preceding video frames if the frame characteristic of said at least one video frame is the second characteristic, and

transforming the decoded video frame into an intra frame after said changing.

54. (new) The method of claim 3, wherein the video effect comprises a color-change effect.

55. (new) The apparatus of claim 17, wherein the spatial domain processing module comprises a special effect processor and a transition effect processor, and the video effect comprises a color-change effect and a scene-transition effect, wherein

if the video effect is a scene-transition effect, said transition effect processor is adapted for changing the decoded video frame and the decoding module is further adapted for decoding said at least one of said preceding video frames so as to transform the decoded video frame into an intra frame after said changing for achieving the scene-transition effect; and

if the video effect is a color-change effect, said special effect processor is adapted for changing the decoded video frame for achieving the color-change effect.

56. (new) The apparatus of claim 26, wherein the media editing device further comprises a special effect processor and a transition effect processor, and the video effect comprises a color-change effect and a scene-transition effect, wherein

if the video effect is a scene-transition effect, said transition effect processor is adapted for changing the decoded video frame and the further module is further adapted for decoding said at least one of said preceding video frames so as to transform the decoded video frame into an intra frame after said changing for achieving the scene-transition effect; and

if the video effect is a color-change effect, said special effect processor is adapted for changing the decoded video frame for achieving the color-change effect.

57. (new) The apparatus of claim 35, wherein the video editing device further a special effect processor and a transition effect processor, and the editing effect comprises a color-change effect and a scene-transition effect, wherein

if the editing effect is a scene-transition effect, said transition effect processor is adapted for changing the decoded video frame and the further module is further adapted for decoding said at least one of said preceding video frames so as to transform the decoded video frame into an intra frame after said changing for achieving the scene-transition effect; and

if the editing effect is a color-change effect, said special effect processor is adapted for changing the decoded video frame for achieving the color-change effect.

58. (new) The computer readable storage medium of claim 43, wherein the video effect comprises a color-change effect and a scene-transition effect, said software program further comprising:

a code for changing the decoded video frame, decoding said at least one of said preceding video frame, transforming the decoding video frame into an intra frame after said changing for achieving the scene-transition effect, if the editing effect is the scene-transition effect, and

a coding for changing the decoded video frame for achieving the color-change effect if the editing effect is the color-change effect.